

Amendments to the Specification:

Amend the paragraph at page 4, line 27 through page 5, line 6, as follows:

-- Various known trip functions can be implemented by the trip unit ~~2~~ ~~44~~ as the specified trip functions. Typically, main and feeder circuit breakers in the low voltage power circuit 1 have a short delay trip function with a specified pickup current and specified time delay. These parameters are selected so that circuit breakers lower in the power circuit and closer to a fault have time to respond first. As mentioned above, this limits disruption of the power circuit by only disconnecting the affected portion of the circuit. Often, such circuit breakers will also have a ground fault trip function as a specified trip function that typically has a specified ground fault pickup current and specified ground fault time delay. Some circuit breakers will also have an instantaneous trip function with a specified instantaneous pickup current. If this instantaneous pickup current value is exceeded, the trip unit actuates the operating mechanism to open the separable contacts 5 without delay. --.

Amend the paragraph at page 7, line 21 through page 8, line 12, as follows:

-- Figure 4 illustrates another embodiment of the invention that employs a maintenance plug 41 in an auxiliary trip circuit 43 to override the specified trip functions implemented by the microprocessor 19. Current transformer 11a senses the current in phase A of the electric power circuit 1. This ac sensing current is converted to a dc current by the bridge circuit 45a and to a voltage proportional to the phase A current by the burden resistor 47a. Similar sensors (not shown) measure the phases B and C and ground fault currents. An auctioneering circuit formed by the diodes 49a, 49b, 49c and 49g selects the voltage representing the highest current as is well known. The number of turns of the current transformer for the ground current is selected to normalize it with the phase currents for auctioneering. The auxiliary trip circuit 43 includes a comparator 51, the output of which is normally low because the 5 volt voltage applied to the noninverting input through the pull down resistor 53 is above the 1.25 volt bias voltage applied to the inverting input. However, when the highest voltage selected by the auctioneering diodes 49a, 49b, 49c, and 49g representing the highest of the phase or ground currents, is above the breakdown voltage of zener diode 55, current flows through the resistor ~~56~~ ~~57~~ and pulls down the voltage on the noninverting input of the comparator 51 to cause the output to go high. This auxiliary trip signal is ORed in OR circuit 57 with the trip signal generated by the microprocessor 19 to actuate the operating mechanism 7 and open the separable contacts 5. Filter capacitor 58 suppresses spurious response. Such an auxiliary trip circuit is now provided in some circuit

breakers 3 to provide a fast instantaneous trip for very high overcurrents. This assures a fast trip, for instance in the case of a short circuit, without the delays inherent in the processing required for the microprocessor 19 to generate a trip signal. --.